

ABSTRACT

Emissive phosphorescent organometallic compounds are described that produce improved electroluminescence, particularly in the blue region of the visible spectrum. Organic light emitting devices employing such emissive phosphorescent organometallic compounds are also described. Also described is an organic light emitting layer including a host material having a lowest triplet excited state having a decay rate of less than about 1 per second; a guest material dispersed in the host material, the guest material having a lowest triplet excited state having a radiative decay rate of greater than about 1×10^5 or about 1×10^6 per second and wherein the energy level of the lowest triplet excited state of the host material is lower than the energy level of the lowest triplet excited state of the guest material.